

AMENDMENT TO THE DRAWINGS:

Please add new Fig. 3 to the specification as attached hereto.

A copy of the drawing sheet containing both Fig. 1 and Fig. 2 as submitted with the copy of the International Application WO 2005/103849 in the initial filing is also attached hereto.

REMARKS

Claims 1-19 are pending in the application. With this amendment claims 1-2, 4-5, 7-9, 11-13, 15, and 17-19 have been amended in order to further define the invention. No new matter has been added.

The drawings have been objected to under 37 C.F.R. §1.83(a) as the Examiner states they fail to show Fig. 2 as described in the specification. It is respectfully submitted that Fig. 2 was submitted with the initial filing of the application as part of the drawing page of the international application WO 2005/103849, contains subject matter as described in the application and presents a representation of the z-value with the representation of the corresponding differential value and includes reference numbers 2, 3 and 4 referring to positive deviations 2, negative deviations 3 and z-value 4. A copy of Fig. 2 is attached.

The drawings have also been objected to under 37 C.F.R. §1.83(a) for failing to show the chip removal machine as requested by the Examiner. Accordingly, new Fig. 3 is attached hereto. The chip removal machine shown is an embodiment described in the specification and no new matter has been added. Approval of this requested drawing is respectfully requested.

The abstract of the disclosure is objected to because it contains a list of reference symbols. In order to have the rejection removed, an amended abstract is submitted wherein the reference symbols have been removed. Approval of the amended abstract is respectfully requested.

Claims 1-19 have been rejected under 35 U.S.C. §112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. With this amendment the Applicants have made every effort to review the Examiner's rejection, the pending claims, and have presented the attached amendment in order to have the 35 U.S.C. §112 rejections removed.

Regarding claim 1, the phrase "such as" has been removed as requested. Regarding lines 9 and 10, the parentheses have been removed in order to clarify that the materials within parentheses define the control system actual values or the selected drive actual values respectively. The terms "according to" have been removed from

sections “b)” and “c)” of claim 1 to clarify that the variables refer to the corresponding values.

Regarding claim 2, the contouring differential value has been further clarified and proper antecedent basis has been provided.

Regarding claim 3, the determination of $z_{bi,a}^{\varphi}$ is claimed to have an increment between 0.05° and 0.2° , in accordance with claim 2.

Regarding claim 4, the term “contouring differential values” has been amended to the singular form as disclosed in claim 2. Claim 4 has been amended to clarify the peak-to-valley value for the control system and peak-to-valley values for the drive. The claim has been further amended to define the proper and single and plural values where necessary and to provide proper antecedent basis.

Claim 5 has been amended to define the error differential value as requested by the Examiner.

Claim 8 has been amended in order to provide proper antecedent basis.

Regarding claim 12, for the one or more of the other axes, the proper antecedent basis has been provided for the indicated values.

Antecedent basis has been added as requested for claims 13, 15 and 17.

Regarding claim 18, the various rejected limitations have been amended similar to the amendment presented in claim 1. Moreover, claim 18 is an apparatus claim as evidenced by the preamble. The chip removal machine comprises a mechanical drive that is regulated by a control system as claimed. Various features of the control system are defined including method steps used by the control system.

Regarding claim 19, proper antecedent basis has been provided as requested.

Claims 1, 14-16 and 18 have been rejected under 35 U.S.C. 102(b) as being anticipated by WO 02/37168 to Drain. The Examiner states that Drain anticipates of the claim limitations regarding the rejected claims.

It is respectfully submitted that the Drain reference cannot anticipate nor teach or suggest the indicated rejected claims. The Drain reference describes, especially on page 10, first full paragraph, that the Z coordinates of each ring of data are preferably normalized. This is accomplished by computing all of the Z coordinate values for a given ring, computing the mean Z value Z_{mean} as $(Z_{\text{max}}+Z_{\text{min}}) / 2$, and then subtracting

Z_{mean} from each of Z_i to Z_n . Then, in real time, the values Z_1 to Z_n correspond to the commanded Z' positions, and the value Z_{mean} corresponds to the commanded Z position. By utilizing the method described by Drain, it is just possible to reduce the movements/stroke of the Z' axis. The value Z_{mean} is invariable. There is no dependency on a different Z_i to Z_n .

In feature c) of independent claim 1 and independent claim 18, it is claimed that an individual control system differential value or an individual drive differential value is calculated for each value Z_i to Z_n . The differential value takes the nominal values as claimed in feature b) into consideration, not only a constant value, for example the Z_{mean} as described in the Drain reference. Accordingly, it is respectfully submitted that the Drain reference cannot anticipate nor teach or suggest the present invention as claimed.

It is respectfully submitted that the claims are in condition for allowance and notice of such is earnestly solicited. Should the Examiner have any questions or concerns regarding this response, a telephone call to the undersigned is greatly appreciated in order to expedite allowance of the application.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Daniel J. Hudak, Jr.", written in a cursive style.

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